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10/529,869	10/04/2005	Toshiyasu Higuma	018760-022	2255

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EXAMINER

RECEK, JASON D

ART UNIT	PAPER NUMBER
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2442

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/529,869	Applicant(s) HIGUMA ET AL.	
	Examiner JASON RECEK	Art Unit 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to the amendment filed on March 9th 2010.

Status of Claims

Claims 1-3 and 5-16 are pending, of which claims 1 and 12-16 are currently amended.

Response to Arguments

1. Applicant's arguments, see pg. 15-17, with respect to the 101 rejection of claims 1-3 and 5-11 have been fully considered and are persuasive. The 101 rejection of claims 1-3 and 5-11 has been withdrawn.
2. Applicant's arguments, see pg. 17-18, with respect to the 112 rejections have been fully considered and are persuasive. The 112 rejections of claims 12-16 has been withdrawn.
3. Applicant's arguments (pg. 19-21) regarding the 103 rejection of claim 1 have been fully considered but they are not persuasive. Applicant asserts Howard does not teach the newly added claim limitations. This is not persuasive. As discussed below in the detailed rejection, Howard discloses an interfaces access unit (communication

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port/module Fig. 2) and means (software) for controlling the interface (adapter module / network module Fig. 3). Howard further discloses a device interface that manages the adapter, including the interface access unit and control access unit, based on receiving messages (col. 5 ln. 7-14). Since these messages are received through the interfaces, Howard teaches a control means (device interface main) that controls access based on operation of the apparatus interface means as recited by claim 1.

4. Applicant's arguments (pg. 21-23) have been fully considered but they are not persuasive. Applicant asserts that Fritsche does not teach the newly added limitations of claims 12-16, specifically that Fritsche does not disclose selection of an input/output format based on the voltage information and the execution of driver software to read attribute information from the home appliance (Pg. 22). This is not persuasive. Fritsche explicitly discloses accessing a device "to read out information" and loading software to operate that device (col. 5 ln. 5-12). Therefore Fritsche teaches selecting an input/output format (load software for device) based on voltage information and reading attribute information. Fritsche concerns general electronic devices and does not specifically teach a "home appliance" however such an appliance is a type of electronic device. For at least these reasons applicant's arguments are not persuasive. See the detailed rejection below for more information.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al. US 6,728,804 B1 in view of Van der Meulen US 6,906,617 B1 and Abdulkarim US 2003/0088796 A1.

Regarding claim 1, Howard discloses “A communication adapter (col. 3 ln. 40-42, Fig. 1), “communication control means” computer program routines that handle communications (col. 4 ln. 64-67), “communication managing means that copies and saves the apparatus object” as an adapter with memory (col. 3 ln. 45-47, Fig. 1 item 24), “makes it possible to use the connection object apparatus from the network” (col. 2 ln. 39-44), and “apparatus interface means” as a communication port that enables communication with the devices (col. 3 ln. 54-56),

“apparatus interface access unit that interfaces with the communication control means according to a procedure common to the connection object apparatuses” as a port or module both interface with control means (Fig. 1 items 26, 28, col. 4 ln. 64 - col. 5 ln. 3),

“apparatus control access unit that interfaces with the communication control means according to the common procedure” the adapter communications module and the network communications module (Fig. 2 items 58, 60) both interface with control

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means, these elements “control access” because Howard teaches they “handle the communications” (col. 4 ln. 64 – col. 5 ln. 3), one of ordinary skill in the art would understand that handling communications is equivalent to controlling,

“first access control means that controls access to the apparatus interface access unit” these modules (Fig. 2 items 58, 60) control access to the interfaces since they handle communications (col. 4 ln. 64—col. 5 ln. 3), “based on an operation of the communication control means” software executed by the processor and memory (col. 3 ln. 40-45), and

“second access control means that controls access to the apparatus control access unit based on an operation of the apparatus interface means” as a device interface main (Fig. 2 item 62, col. 5 ln. 7-14) that contains software to manage the communications based on receiving messages from the interfaces (operation of the apparatus interface means).

Howard does not explicitly disclose “power supply managing means” however this is taught by Van der Meulen as a power supply managing means that manages a state of power (col. 3 ln. 32-49, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

The combination of Howard and Van der Meulen does not explicitly disclose that the power managing means "manages a state of power supply of the communication adapter apparatus, and controls an operation of at least one of the communication control means ... in accordance with a state of the power supply" however this is taught by Abdulkarim (paragraphs 24, 39, 41, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Howard and Van der Meulen to manage the power of the communication adapter as taught by Abdulkarim. Abdulkarim suggests a power management system should be able to manage power consumption of all subsystems (i.e. communication adapter) for the purpose of reducing power consumption in response to environmental regulations or other conditions (paragraphs 4-5).

Regarding claim 2, Howard does not explicitly disclose "manages a charged capacity inside an adapter" or "the communication control means to limit communication according to a management state of the power supply managing means" however these are taught by Van der Meulen as a power supply managing means (col. 3 ln. 32-49, Fig. 2) and communicating only during certain periods (col. 3 ln. 60-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

Regarding claim 3, Howard does not explicitly disclose "the apparatus communication managing means to limit accesses to the apparatus object according to a management state of the power supply" however this is taught by Van der Meulen as a system which only communicates during certain power states (col. 5 ln. 12-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

Regarding claim 5, Howard discloses "object managing means" as the apparatus understands object-oriented program code (col. 5 ln. 50-58), "state acquisition procedure setting means" as variables that may be set according to the state of a device such as light on (col. 5 ln. 59-67), "installation information managing means" as providing new program code when a new device is identified (col. 6 ln. 30-42), "network attribute managing means" as an adapter that is capable of communication on a network must have the necessary means to manage that communication (col. 3 ln. 58-62), and "network band managing means" as a communication module that handles network communication (col. 5 ln. 1-3).

Regarding claim 6, Howard discloses “generates an imaginary apparatus object on the basis of a setting command” as the adapter can create an object to represent a device (col. 6 ln. 1-14), it is not necessary that the device be connected before the object is created.

Regarding claim 7, Howard discloses “the apparatus communication managing means ... performs operation and setting for this imaginary apparatus and acquisition of a state” as the adapter controls the object and thus is able to perform state acquisition and setting of variables (col. 5 ln. 59-62), and “performs setting for running and stop of the apparatus object and acquisition of a state” as controlling the object (col. 6 ln. 5-14).

Regarding claim 8, Howard discloses “a database that holds installation information” as memory (col. 3 ln. 42) that holds database information (col. 5 ln. 40-41), “writing/reading means” are also disclosed (col. 7 ln. 37-39).

Regarding claim 9, Howard discloses “abnormality notifying means” as a monitor function that provides monitoring information to the network (col. 7 ln. 2-4, 42-45).

Regarding claim 10, Howard does not explicitly disclose “provides the connection object apparatuses with the abnormality information when data transmission through the network is impossible” however it would have been obvious to one of ordinary skill in the

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art at the time of the invention that if one line of communication is not in use (i.e., the network), another line of communication should be tried.

Regarding claim 11, it is a combination of claims 1 and 2, therefore it is rejected for similar reasons.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howard and Fritsche et al. US 6,567,007 B1.

Regarding claim 12, Howard discloses "A communication adapter" (col. 3 ln. 41-42), "first input/output interface that is connected to a second input/output interface of a home appliance" (Fig. 3, items 58 and 60 are the interfaces) and "network interface" (col. 3 ln. 53-54, Fig. 1), "a CPU" and "storage" (col. 3 ln. 46-47, Fig. 1), "pieces of driver software, each driver controlling hardware" as program code for communicating with the device (col. 5 ln. 15-18), and "selects driver software corresponding to the input/output format of the second input/output interface of the home appliance" as identifying the device and selecting the appropriate software (col. 6 ln. 38-64, Fig. 5 steps 86-90).

Howard does not explicitly disclose "CPU distinguishes an input/output format of the second input/output interface of the home appliance on the basis of voltage information supplied from the home appliance ... and selects driver software corresponding to the input/out system based on the supplied voltage information" however this is taught by Fritsche as identifying a device based on voltage information

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(col. 2 ln. 5-18, col. 6 ln. 17-55) and loading data (i.e. driver) for the operation of that device (col. 2 ln. 31-38). Fritsche also teaches "executes the driver software to read attribute information" as reading out information (col. 5 ln. 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard with the teachings of Fritsche for the purpose of identifying a device and how to interface with that device by voltage information. Howard suggests there are multiple ways to identify a device (col. 6 ln. 29-48), incorporating the teachings of Fritsche simply adds an additional method for identification.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Howard and Fritsche in view of Van der Meulen.

Regarding claim 13, it recites some of the language from claim 12, that language is rejected for the same reasons.

Howard also discloses "the storage device has plural pieces of driver software, each driver directly controls hardware a respective second input/output interface" as a translator module that contains computer program instructions for communicating and controlling the device (col. 5 ln. 15-35), and "on the basis of a [response] returned from the home appliance ... selecting driver software of the serial input/output format having a ... type identified in the response" as receiving a response and selecting translator software (col. 5 ln. 15-50, col. 6 ln. 38-45, Fig. 5 steps 88-90). By selecting software for interfacing and controlling the device it would have been obvious to one of ordinary skill

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in the art that the driver software would have a clock type corresponding to the device.

The purpose of selecting software is to interface and control the device, thus the software is inherently compatible and thus would include a required clock type.

Howard does not explicitly disclose selecting driver software “on the basis of a voltage returned from the home appliance” however this is taught by Fritsche as identifying a device based on voltage information (col. 2 ln. 5-18, col. 6 ln. 17-55) and loading data (i.e. driver) for the operation of that device (col. 2 ln. 31-38). The motivation to combine is the same as given above. Fritsche also teaches “executing the driver software to read attribute information” as reading out information (col. 5 ln. 10).

The combination of Howard and Fritsche does not explicitly disclose “supplies a clock signal from the communication adapter” however this is taught by Van der Meulen as a power connection which supplies a synchronous signal (col. 3 ln. 40-46, Fig. 2). Howard teaches that a device may be a personal computer system (col. 4 ln. 26-30) and depending on the type of network used (col. 4 ln. 5-10) a clock signal may be present between devices. A communication network that contains clock signals is well known in the art (as evidenced by Van der Meulen). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a clock signal as taught by Van der Meulen. This is merely the combination of known elements according to their established function in order to yield a predictable result.

9. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al. US 6,728,804 B1 in view of Van der Meulen US 6,906,617 B1.

Regarding claim 14, it recites some of the language from claims 12 and 13, that language is rejected for the same reasons. Howard also discloses “selects driver software held by the storage on the basis of a communication frame that is sent from an electrical apparatus” as identifying a device based on communication received from it (col. 6 ln. 30-40).

Regarding claim 15, it recites some of the language from claims 12 and 13, that language is rejected for the same reasons. Howard also discloses “storage holds attribute information” (col. 6 ln. 11-12) and “which can be monitored, controlled and set” (col. 6 ln. 66-67). These limitations are also disclosed by the summary of Howard as an adapter that contains updateable memory, such memory holds an object or identification of a device (col. 1 ln. 60 – col. 2 ln. 25). Howard does not explicitly disclose that the object or identification of the device comprises model names, and power consumption however it would have been obvious to one of ordinary skill in the art to include these. The process of identifying something includes attaching a name and other defining characteristics.

Regarding claim 16, , it recites some of the language from claim 15, that language is rejected for the same reasons. Howard also discloses “the communication adapter selects one piece of the attribute information on the basis of a communication

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frame sent from an electrical apparatus" as the adapter updates attribute information with information sent over the network (col. 7 ln. 33-36).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ebert US 2003/0120753 A1 discloses software for processing information including attributes of a device (paragraph 23).

Koga US 7,075,670 B1 discloses reading an attribute setting file (abstract).

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON RECEK whose telephone number is (571)270-1975. The examiner can normally be reached on Mon - Fri 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Lee can be reached on (571) 272-3967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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